

# Two New Species of *Rhododendron* (Ericaceae) from China

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**ABSTRACT.** Two new species, *Rhododendron dayaoshanense* L. M. Gao & D. Z. Li from Guangxi, southern China, and *Rhododendron longilobum* L. M. Gao & D. Z. Li from Yunnan, southwestern China, are described and illustrated here. *Rhododendron dayaoshanense*, known only from Dayaoshan Mountain, Guangxi, is distinguished by the following characters: the leaves narrowly oblanceolate or oblong-lanceolate, short setose on undersurface and midrib, petiole densely glandular setose, pedicel densely gray-puberulent and glandular-pilose as well as ovary densely flavescent-tomentose. *Rhododendron longilobum* is collected only from Daweishan Mountain, southeast Yunnan, and is distinguished from its close relatives by the characters of the leaf blades with prominent lateral primary veins on both surfaces, calyx lobes membranaceous, linear, linear-lingulate or narrowly triangular, and 0.5–2 cm long; ovary densely flavescent tomentose and truncate at the apex.

**Key words:** China, Ericaceae, *Rhododendron*.

The two new species in this paper belong to *Rhododendron* subg. *Azaleastrum*, sect. *Choniastrum*, which is recognized by the following characters: evergreen shrubs or small trees; inflorescence buds lateral at the end of branches, 1- to several-flowered; corolla narrowly funnel-shaped, 5-lobed; stamens 10; ovary glabrous or pilose, cylindric, (5)6-locular. Section *Choniastrum* is comprised of about 14 species in China (He et al., 1994). Species of section *Choniastrum* are mainly distributed in southern China; only *R. taiense* Hutchinson is endemic to Thailand, and *R. moulmainense* Hooker f. extends southward to the Malay Peninsula and westward to Assam in India (Philipson & Philipson, 1986; Fang & Ming, 1995).

***Rhododendron dayaoshanense*** L. M. Gao & D. Z. Li, sp. nov. TYPE: China. East Guangxi: Jinxiu Xian, Dayaoshan, alt. 1180 m, 2 May 2000 (fl), L. M. Gao 20059 (holotype, KUN; isotype, KUN). Figure 1.

Species valde affinis *R. henryi* Hance, sed laminis foliorum oblanceolatis vel oblongo-lanceolatis, 8–13 cm longis, 1.8–2.5 cm latis, pedicellis dense cinereo-pubescentibus et sparsim glanduloso-pilosis; ovario dense flavescenti-tomentoso bene distincta.

Small tree, 3–4 m high; young branches slender, terete, glandular setose; mature branches brown, glabrous. Leaves clustering at the ends of branches, pseudo-verticillate; blade narrowly oblanceolate or oblong-lanceolate, 8–13 × 1.8–2.5 cm; apex acuminate, base cuneate, margin slightly revolute, midrib slightly depressed above and raised beneath, lateral veins 14 to 18 pairs, prominent on both surfaces, upper surface green, glabrous, undersurface pale green, short setae scattered on undersurface, dense on midrib. Petiole 0.8–1.5 cm long, grooved above, glandular setose. Inflorescence lateral, 4- to 5-flowered, umbellate; rachis brown, glabrous, 0.5 cm long; pedicels 2.5–3.5 cm long, densely gray pubescent and sparsely glandular pilose. Calyx rim undulate, lobes 5, triangular, ca. 1 mm long, glabrous. Corolla pale rose, narrowly funnelform, 5–5.5 cm long, glabrous outside; lobes 5, oblong-obovate or elliptic, 3.5–4 × 2.5–3 cm, tube 1.5–2 cm long, upper lobe with yellow blotch inside. Stamens 10, shortly exserted, filaments 4–4.5 cm long, puberulous in basal half but glabrate at base; anthers ovate, ca. 2 mm long, purple. Ovary oblong-cylindric, 7 mm long, densely flavescent tomentose. Style glabrous, 4–4.5 cm long; stigma green, capitate. Capsule not seen.

**Distribution and habitat.** The new species is known only from the type collection. It was found about 8 km east of Dayaoshan Mountain, Jinxiu county, east Guangxi Province, growing on a slope near the roadside, on the margin of mixed forest at ca. 1180 m altitude. Little plant collection has been done in the area. Thus it is not surprising that the species had not been collected before, and it is likely that it is not really rare on Dayaoshan Mountain.

*Rhododendron dayaoshanense* resembles *R. henryi* Hance in sharing 4 to 5 flowers per inflorescence, pink corolla, cylindric ovary, and tapering ovary apex. However, *R. dayaoshanense* differs from *R. henryi* in the leaves oblanceolate or oblong-lanceolate, calyces minute, glabrous, pedicel densely gray-puberulent and glandular-pilose, as well as



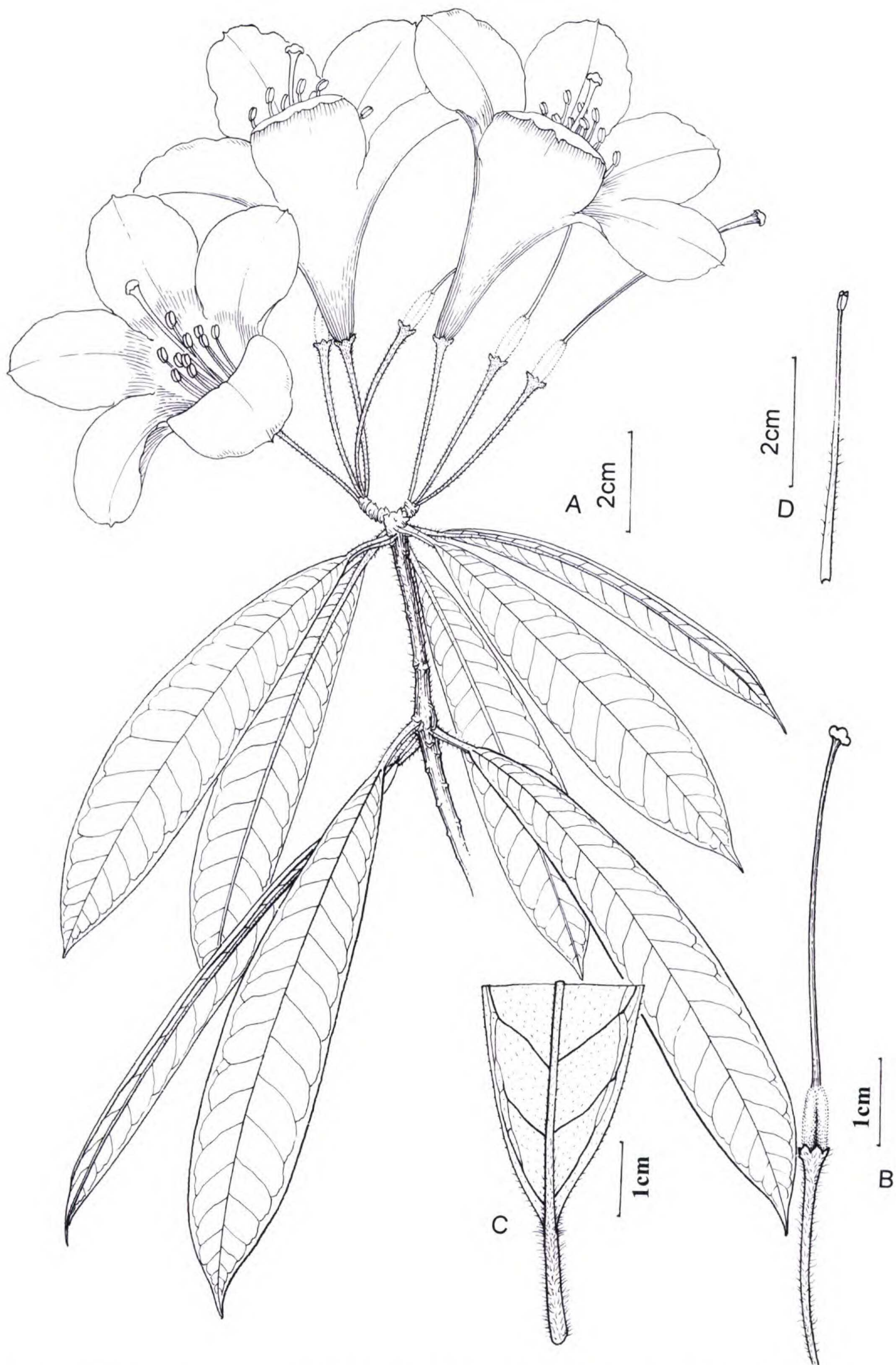


Figure 1. *Rhododendron dayaoshanense* L. M. Gao & D. Z. Li. —A. Flowering branch. —B. Pistil. —C. Basal portion of abaxial leaf surface. —D. Stamen. Drawn from the holotype (L. M. Gao 20059).



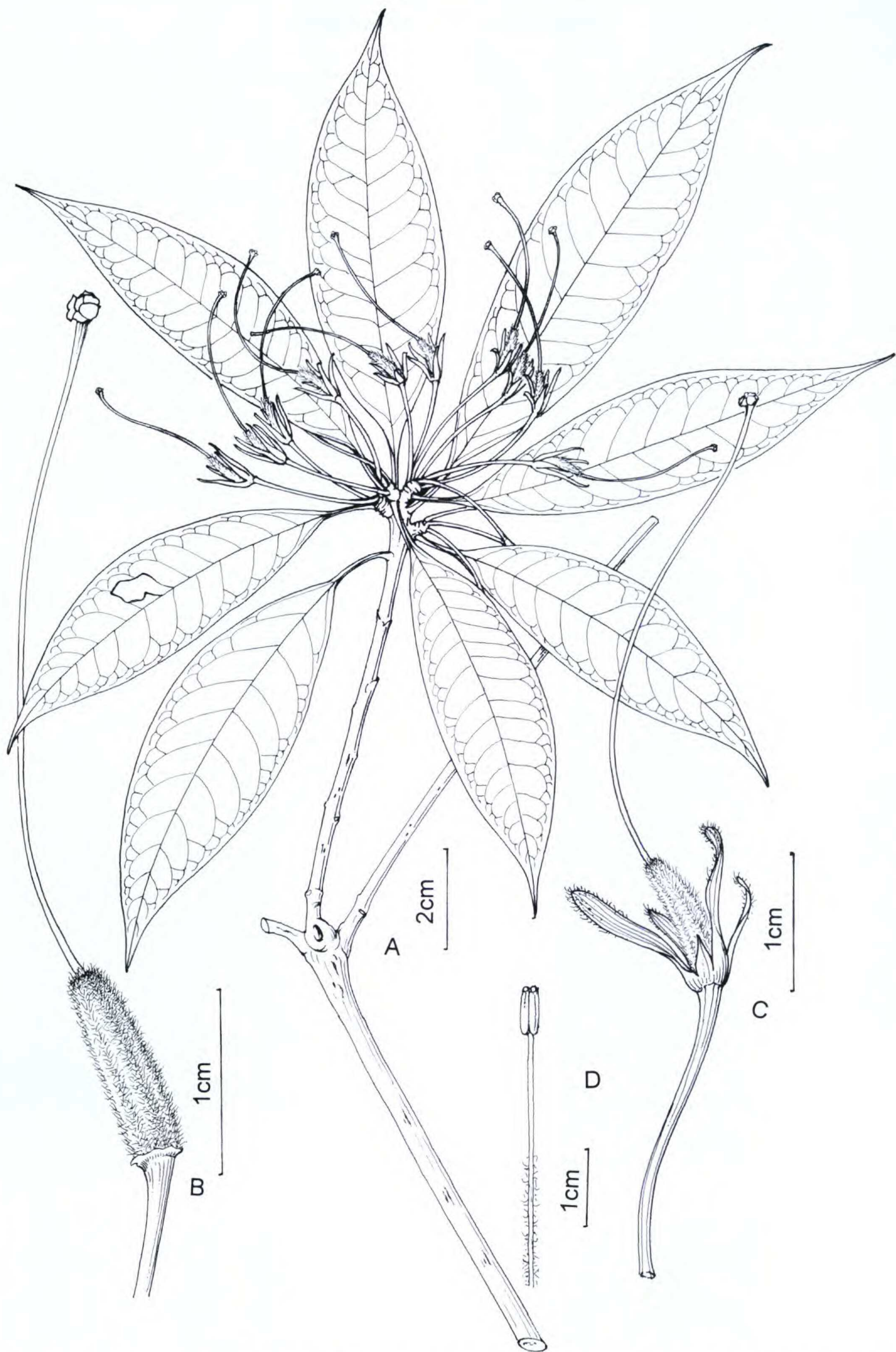


Figure 2. *Rhododendron longilobum* L. M. Gao & D. Z. Li. —A. Young fruit branch. —B. Pistil. —C. Pistil with calyx lobes. —D. Stamen. Drawn from the holotype (*Rhododendron* Picture Group 83–0357).



ovary densely flavescent-tomentose. *Rhododendron dayaoshanense* is also similar to *R. cavaleriei* in having 4 to 5 flowers per inflorescence, pedicel densely gray-pubescent, ovary densely flavescent-tomentose, and ovary apex tapering. However, the later species differs in the young branches glabrous, the leaves glabrous, the lateral primary veins inconspicuous, and petiole glabrous.

The new species is possibly a hybrid between *R. cavaleriei* Lévillé and *R. championae* Hooker f. because *R. dayaoshanense* is distributed together with *R. cavaleriei* and *R. championae* in this region and some characters of *R. dayaoshanense* were shared by *R. cavaleriei* and *R. championae*. The sequences of ITS and *TrnL-F* of *R. dayaoshanense* are the same as those of *R. cavaleriei* and *R. championae*.

***Rhododendron longilobum*** L. M. Gao & D. Z. Li, sp. nov. TYPE: China. Southeast Yunnan: Pingbian Xian, Daweishan, near Shiuweicheng, alt. 1950 m, 9 May 1983, *Rhododendron* Picture Group 83-0357 (holotype, KUN; isotype, KUN). Figure 2.

Species valde affinis *R. cavaleriei* sed laminis foliorum oblongis vel oblongo-ellipticis, nervis lateralibus foliorum utrinque conspicuis; lobis calycis membranaceis, 5–20 mm longis, 1 mm latis, linearibus vel lineari-lingulatis vel anguste triangularibus, ovario dense flavescenti-tomentoso, apice truncato differt.

Small trees, 6–8 m high; young branches terete, gray, glabrous. Leaves clustering at the ends of branches, pseudo-verticillate; blades elliptic or narrowly elliptic, ca.  $7\text{--}10.5 \times 1.8\text{--}2.5$  cm, apex long acuminate, base cuneate, margin slightly revolute; upper surface green, under surface pale green, glabrous, midrib depressed above and raised beneath, lateral veins 12 to 16 pairs, prominent on both surfaces. Petioles 0.8–1.5 cm long, grooved above, glabrous. Inflorescences lateral, 4- to 5-flowered, umbrella clustering near the end of leafy shoot; outer bud scale gray pubescent, margin and apex minutely ciliate; rachis brown, ca. 0.5 cm long, glabrous; pedicels 2–2.5 cm long, glabrous. Calyx lobes 5, membranaceous, linear, linear-lingulate, or narrowly triangular,  $5\text{--}20 \times 1$  mm, margins sometimes minutely ciliate and apical rim having tufts of long weak hairs. Corolla pale rose, narrowly funnellform, glabrous outside; lobes 5, 3–3.5 cm long, tube ca. 1 cm long. Stamens 10, shortly exserted, filaments 3–3.5 cm long, with pubescence on lower half; anthers ovate, ca. 2 mm long. Ovary narrowly cylindric, 7–12 mm long, densely flavescent tomentose, apex truncate; style glabrous, 3–3.5 cm long. Capsule not seen.

*Distribution and habitat.* The new species is probably rare as it is known only from the type collection, which occurs in evergreen broad-leaved forest, near the top of Daweishan Mountain at ca. 1950 m altitude, Pingbian County, southeast Yunnan province. This species occurs together with *R. tutcheriae* Hemsley & E. H. Wilson, *R. moulmainense* Hooker f., and *R. hancockii* Hemsley of section *Choniastrum*. The habitat of the new species is very humid, which does not benefit growth and dispersion of seeds. It may be one of the reasons why this new species is rare at the type locality.

The species is easily distinguished from other species of section *Choniastrum* by the leaf blades with prominent lateral primary veins on both surfaces, the calyx lobes membranaceous, up to 2 cm long, and the ovary densely flavescent tomentose and truncate at the apex. *Rhododendron longilobum* is most similar to *R. cavaleriei* in having glabrous leaves, several flowers per inflorescence, and densely tomentose ovary. However, it differs from *R. cavaleriei* in having prominent lateral primary veins on both surfaces, the calyx lobes membranaceous and up to 2 cm long, and the ovary truncate at the apex. *Rhododendron kaliense* Fang & M. Y. He, *R. linearicupulare* Tam, *R. huguangense* Tam, and *R. longilobum* all have well-developed calyces, and the calyx lobes are variable in size. However, *R. longilobum* is easily distinguished from *R. kaliense*, *R. linearicupulare*, and *R. huguangense* by the characters of the ovary densely flavescent tomentose and truncate at the apex. The ovary is glabrous and tapering at the apex of *R. kaliense*, *R. linearicupulare*, and *R. huguangense*, which is different from *R. longilobum*.

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